

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.  
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<b>AIRPORT ID</b> HRL	<b>PROCEDURE NAME</b> RNAV (GPS) RWY 18L	<b>ORIGINAL/AMENDMENT</b> 3	<b>CITY</b> HARLINGEN	<b>STATE</b> TX
<b>AIRPORT ELEVATION</b> 36	<b>TDZE</b> 34	<b>SUPERSEDED</b> RNAV (GPS) RWY 17L	<b>DATED</b> 10/08/2020	<b>MAG VAR</b> 3E
<b>FACILITY</b> RNAV	<b>COORDINATES OF FACILITIES</b>	<b>ACTUAL EFFECTIVE DATE</b> 11 JULY 2024	<b>REQUIRED EFFECTIVE DATE</b> 07/11/2024	<b>EPOCH YEAR</b> 2025
				<b>CANCEL/SUSPEND</b>

**TERMINAL ROUTES**

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
LATEX	IAF	BETVE	NOPT	TF	FB	1.00	117.31	16.79	2000
MANNY	IAF	BETVE	NOPT	TF	FB	1.00	224.88	17.97	2000
BETVE	IF/IAF	AXINE		TF	FB	1.00	177.64	5.62	1600
AXINE	FAF	ZARSA/2.00 NM TO RW18L		TF	FB	0.30	177.64	2.76	
ZARSA/2.00 NM TO RW18L		RW18L	MAP	TF	FO	0.30	177.64	2.00	
RW18L	MAP	500 MSL		CA			177.64		500
500 MSL		RELAX		DF	FO	1.00			2000

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW18L

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 500 THEN CLIMBING LEFT TURN TO 2000 DIRECT RELAX AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

**PROFILE:**

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD N BETVE, RT, 177.64 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.
- FAC: 177.64 FAF: AXINE DIST FAF TO MAP: 4.76 DIST FAF TO THLD: 4.76
- MIN ALT: BETVE 2000, AXINE 1600, ZARSA/2.00 NM TO RW18L 720
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.47 GS ANT: IM:
- MIN GP INCPT: 1600 GP ALT AT PFAF: AXINE 1600 OM: MM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 50.0
- MSA FROM: RW18L 2600



**PBN REQUIREMENTS NOTE:**

RNP APCH - GPS.

**NOTES:**

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PORT ISABEL ALTIMETER SETTING.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT MANNY ON V163 NORTHBOUND, AND ARRIVALS AT LATEX ON V20 SOUTHWEST BOUND.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -1°C OR ABOVE 54°C.  
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING: INCREASE LPV DA TO 276 FEET; INCREASE LNAV/VNAV DA TO 326 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CATS C AND D 1/8 SM, AND CIRCLING VISIBILITY CATS C AND D 1/4 SM.

**ADDITIONAL FLIGHT DATA:**

HOLD N, LT, 175.21 INBOUND.  
CHART FAS OBST: 108 TRANSMISSION\_LINE (48-029040) 261526N/0973916W.  
CHART VDP AT 0.87 NM TO RW18L.  
WAAS CHANNEL # 90430  
REFERENCE PATH ID: W18B  
CHART CIRCLING ICON.  
LTP HAE: -12.5 M

**MINIMUMS:**

**TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT**

**ALTERNATE:** NA  STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

<b><u>CATEGORY:</u></b>	<b><u>A</u></b>			<b><u>B</u></b>			<b><u>C</u></b>			<b><u>D</u></b>			<b><u>E</u></b>		
<b><u>FINAL TYPE</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>
LPV DA	234	3/4	200	234	3/4	200	234	3/4	200	234	3/4	200			
LNAV/VNAV DA	284	3/4	250	284	3/4	250	284	3/4	250	284	3/4	250			
LNAV MDA	360	1	326	360	1	326	360	1	326	360	1	326			
CIRCLING	460	1	424	560	1	524	600	1 1/2	564	680	2	644			



**CHANGES - REASONS**

1. PROCEDURE NAME CHANGED FROM RNAV (GPS) RWY 17L TO RNAV (GPS) RWY 18L - MAGVAR AND RWY RENUMBER
2. TERMINAL ROUTES INITIAL LATEX TO BETVE MAG COURSE CHANGED FROM 115.31 TO 117.31 - ARPT MAGAR UPDATE
3. TERMINAL ROUTES INITIAL MANNY TO BETVE MAG COURSE CHANGED FROM 222.88 TO 224.88 - ARPT MAGVAR UPDATE
4. TERMINAL ROUTES INTERMEDIATE BETVE TO AXINE LEG LENGTH CHANGED FROM 5.95NM TO 5.62NM - FAF AXINE RELOCATED
5. TERMINAL ROUTES INTERMEDIATE BETVE TO AXINE ENDING ALTITUDE CHANGED FROM 1500 TO 1600 - FAF AXINE RELOCATED
6. TERMINAL ROUTES INTERMEDIATE BETVE TO AXINE MAG COURSE CHANGED FROM 175.64 TO 177.64 - ARPT MAGVAR UPDATE
7. BASIC INFORMATION MAGVAR & EPOCH YEAR CHANGED FROM 5E/2005 TO 3E/2025 - ARPT MAGAR UPDATED PER MAGAR LETTER
8. TERMINAL ROUTES ZARSA DEFINITION CHANGED FROM "ZARSA/2.00 NM TO RW17L" TO "ZARSA/2.00 NM TO RW18L" - RWY RENUMBERED
9. LINE 2 ADDED MAX 6000 - PER ATC REQUEST
10. LINE 4 CHANGED FROM "BETVE 2000, AXINE 1600, ZARSA/2.00 NM TO RW18L 720\*" TO "BETVE 2000, AXINE 1600, ZARSA/2.00 NM TO RW18L 720" - \* NO LONGER REQUIRED PER 8260.19I 8-6-7, RWY RENUMBERED DUE TO MAGVAR UPDATE
11. TERMINAL ROUTES LNAV FINAL AXINE TO ZARSA LEG LENGTH CHANGED FROM 2.43NM TO 2.76NM - FAF AXINE AND FINAL SDF ZARSA RELOCATED
12. LINE 6 MIN GP INCEPT AND GP ALT AT PFAF CHANGED FROM 1500 TO 1600 - FAF AXINE RELOCATED
13. TERMINAL ROUTES LNAV FINAL AXINE TO ZARSA MAG COURSE CHANGED FROM 175.64 TO 177.64 - ARPT MAGVAR UPDATED
14. LINE 7 TCH CHANGED FROM 55.0 TO 50.0 - VGSI COMMISSIONED, DESIGN TCH 3.00/50.0
15. TERMINAL ROUTES LNAV FINAL ZARSA TO MAP MAG COURSE CHANGED FROM 175.64 TO 177.64 - ARPT MAGVAR UPDATED
16. LINE 3 FAC CHANGED FROM 175.64 TO 177.64 - ARPT MAGVAR UPDATED
17. LINE 6 GLIDE SLOPE INTERCEPT CHANGED FROM 1500 TO 1600 - FAF AXINE RELOCATED PER ATC & FPT REQUEST
18. ADDITIONAL FLIGHT DATA CHANGED FAS OBSTACLE FROM "CHART FAS OBST:108 TRMSN TWR 261526N/0973916W" TO "CHART FAS OBST: 108 TRANSMISSION\_LINE (48-029040) 261526N/0973916W" - UPDATED SURVEY, NEW OBSTACLE ID
19. LINE 5 200 FT HAT DISTANCE CHANGED FROM 0.61NM TO 0.47 AND MOVED FROM ADDITIONAL FLIGHT DATA - LOWERED MINS, NEW CONTROLLING OBSTACLE
20. LINE 3 LNAV FAF TO MAP & FAF TO THLD DISTANCE CHANGED FROM 4.43NM TO 4.76NM - FAF AXINE RELOCATED, FAF ALTITUDE INCREASE & CURRENT PFAF FORMULA
21. ADDITIONAL FLIGHT INFO CHANGED "CHART VDP AT 0.98 MILES TO RW17L\*" TO "CHART VDP AT 0.87 NM TO RW18L" - FAF AXINE RELOCATED AND LOWERED MINS, RWY RENUMBERED
22. MINIMUMS LPV DA/HAT ALL CATS CHANGED FROM 284/250 TO 234/200 - LPV SURFACE NOW CLEAR
23. MINIMUMS LNAV/VNAV DA/HAT ALL CATS CHANGED FROM 350/316 TO 284/250 - LNAV/VNAV SURFACE NOW CLEAR
24. MINIMUMS LNAV/VNAV VIS ALL CATS CHANGE FROM 1 1/8 SM TO 3/4 SM - IAW 8260.3E TABLE 3-3-7
25. MINIMUMS LNAV MDA/HAT CHANGED FROM 400/366 TO 360/326 - NEW FINAL CONTROLLING OBSTACLE
26. MINIMUMS CIRCLING VIS CAT C CHANGED FROM 1 3/4 SM TO 1 1/2 SM - IAW 8260.3E TABLE 3-3-7
27. MINIMUMS CIRCLING CAT C CMDA/HAA CHANGED FROM 680/644 TO 600/564 - NEW CAT C CIRCLING CONTROLLING OBSTACLE
28. MINIMUMS CIRCLING CAT C VISIBILITY CHANGED FROM 1 3/4 SM TO 1 1/2 SM - CAT C CIRCLING MINIMUMS LOWERED NEW CONTROLLING OBSTACLE IAW 8260.3E TABLE 3-3-7
29. ADDITIONAL FLIGHT DATA REMOVED "\*\*LNAV ONLY" - NO LONGER REQUIRED
30. LINE 7 ADDED "20:1 IS CLEAR" - NEW SURVEY
31. MINIMUMS CIRCLING CAT A MDA/HAA CHANGED FROM 500/464 TO 460/424 - NEW CAT A CIRCLING CONTROLLING OBSTACLE
32. NOTES CHANGED BACKUP ALTIMETER NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING AND INCREASE ALL DA 42 FEET AND ALL MDA 60 FEET; INCREASE LPV AND LNAV/VNAV ALL CATS VISIBILITY 1/8 MILE, LNAV CATS C/D AND CIRCLING CAT D VISIBILITY 1/4 MILE" TO READ "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORT ISABEL ALTIMETER SETTING: INCREASE LPV DA TO 276 FEET; INCREASE LNAV/VNAV DA TO 326 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND LNAV VISIBILITY CATS C AND D 1/8 SM, AND CIRCLING VISIBILITY CATS C AND D 1/4 SM" - NEW WEATHER DATA AND MINIMUMS
33. TERMINAL ROUTES INTERMEDIATE BETVE TO AXINE RNP CHANGED FROM 0.5 TO 1.0 - PER 8260.58C 3-1-4
34. PBN REQUIREMENT NOTES ADDED RNP APCH-GPS - PER 8260.19I 8-6-8
35. PROCEDURE NOTES CONSOLIDATED CHART PLANVIEW NOTES TO READ "PROCEDURE NA FOR ARRIVALS AT MANNY ON V163 NORTHBOUND, AND ARRIVALS AT LATEX ON V20 SOUTHWEST BOUND." -PER 8260.19I 8-2-4 SUBPARA E2
36. REFERENCE IDENTIFIER CHANGED FROM W17B TO W18B - RWY CHANGED FROM RWY 17 TO RWY 18
37. FAS DATA BLOCK CRC REMAINDER CHANGED FROM 83B43B26 TO D9EF3A31 - RUNWAY NUMBER CHANGED FROM 17L TO 18L, REF ID CHANGED FROM W17B TO W18B, LTP LAT/LONG CHANGED FROM 261402.2245N/0973855.2920W TO 261402.2295N/0973855.2900W, FPAP LAT/LONG CHANGED FROM 261232.8500N/0973856.4000W TO 261232.8710N/0973856.3945W, AND VAL CHANGED FROM 50.0 TO 35.0, TCH CHANGED FROM 00055.0 TO 00050.0
38. TERMINAL ROUTES MISSED APPROACH CA LEG MAG COURSE CHANGED FROM 175.64 TO 177.64 - ARPT MAGVAR UPDATE
39. LINE 5 HAT CHANGED FROM 250 TO 200 - LOWERED MINIMUMS NEW CONTROLLING OBSTACLE
40. NOTES CHANGED FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15°C (5°F) OR ABOVE 54°C (130°F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -1°C OR ABOVE 54°C" - NEW TEMPERATURE DATA, DEGREES FAHRENHEIT - NO LONGER REQUIRED IAW 8260.19I 8-6-9
41. REMOVED CHART NOTE DME/DME RNP-0.3 NA - NO LONGER REQUIRED

**COORDINATED WITH:**

**A4A**  **ALPA**  **AOPA**  **APA**  **HAI**  **NBAA**  **OTHER:** ZHU, HRL ATCT, VALLEY APP CON, AMGR

**FLIGHT CHECKED BY**

PENDING

*Digitally signed by*

**ERIC N SUSKI**

Apr 30, 2024

**OFFICE**

**DATE**

**DEVELOPED BY**

CHARLES HIRST

*Digitally signed by*

**CHARLES HIRST**

Apr 25, 2024

**OFFICE**

AJV-A431

**DATE**

01/31/2024

**APPROVED BY**

ERIC N SUSKI

*Digitally signed by*

**ERIC N SUSKI**

Apr 30, 2024

**OFFICE**

AJV-A431

**DATE**

**TITLE**  
MANAGER

**FAS DATA BLOCK INFORMATION**

**DATA FIELD**

**OPERATION TYPE**  
**SBAS SERVICE PROVIDER IDENTIFIER**  
**AIRPORT IDENTIFIER**  
**RUNWAY**  
**APPROACH PERFORMANCE DESIGNATOR**  
**ROUTE INDICATOR**  
**REFERENCE PATH DATA SELECTOR**  
**REFERENCE PATH IDENTIFIER (APPROACH ID)**  
**LTP/FTP LATITUDE**  
**LTP/FTP LONGITUDE**  
**LTP/FTP ELLIPSOIDAL HEIGHT**  
**FPAP LATITUDE**  
**FPAP LONGITUDE**  
**THRESHOLD CROSSING HEIGHT (TCH)**  
**TCH UNITS SELECTOR (METERS OR FEET USED)**  
**GLIDEPATH ANGLE (GPA)**  
**COURSE WIDTH AT THRESHOLD**  
**LENGTH OFFSET**  
**HORIZONTAL ALERT LIMIT (HAL)**  
**VERTICAL ALERT LIMIT (VAL)**

**DATA**

0  
0  
KHRL  
RW18L  
0  
0  
W18B  
261402.2295N  
0973855.2900W  
-00125  
261232.8710N  
0973856.3945W  
00050.0  
F  
03.00  
106.75  
0936  
40.0  
35.0

**CRC REMAINDER**

D9EF3A31

**ADDITIONAL PATH POINT RECORD INFORMATION**

**ICAO CODE**  
**LTP ORTHOMETRIC HEIGHT**  
**FPAP ORTHOMETRIC HEIGHT**

K4  
+00103  
+00103

